UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,486	03/11/2005	Olaf Joeressen	915-006.073	7159

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EXAMINER
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ART UNIT	PAPER NUMBER
2164	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/527,486	JOERESSEN ET AL.
	Examiner	Art Unit	
	Alicia M. Lewis	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *29 March 2007*.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is responsive to communication filed March 29, 2007. Claims

1, 4, 5-10, 13-15 have been amended. Claims 1-16 remain pending in this application.

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Claim 14 is not limited to tangible

embodiments. Claim 14 recites a computer data signal embodied in a carrier wave and

at least transiently stored in a computer readable storage structure. Signals and carrier

waves are not considered tangible mediums; furthermore, signals and waves cannot me

stored in computer readable storage structures. Thus the claim is not limited to tangible

embodiments. As such, the claim is not limited to statutory subject matter and is

therefore non-statutory.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-3, 6 and 8-15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dutta et al. (US Patent Application Publication 2002/0149569 A1)

('Dutta') in view of Will (US Patent 6,392,640).

        With respect to claims 1 and 11-15, Dutta teaches:

        generating, for browsing, a character subset of said character set, said character

subset including characters from among which, according to an inference logic, the next

character for said word is most probably selected (paragraph 56);

        displaying said character subset on a display of said electronic device, for

browsing and selecting the next character by the user (paragraph 57),

        wherein said inference logic is based on a database of words and at least one

usage parameter related to each of said words (paragraphs 37, 38 and 56).

        Dutta does not explicitly teach wherein said user interface is a roller, and wherein

browse commands are issued by rotating the roller around its axis, and wherein select

commands are issued by pressing the roller.

        Will teaches entry of words with thumbwheel by disambiguation (see abstract), in

which he teaches wherein said user interface is a roller, and wherein browse commands

are issued by rotating the roller around its axis, and wherein select commands are

issued by pressing the roller (column 2 lines 27-33).

        It would have been obvious to a person having ordinary skill in the art at the time

the invention was made to have modified Dutta by the teaching of Will because wherein

said user interface is a roller, and wherein browse commands are issued by rotating the

roller around its axis, and wherein select commands are issued by pressing the roller

would enable a way of entering text in a device too small for a keyboard, and more

specifically a way to utilize the thumbwheel along with a touch-screen to more

effectively enter characters (Will, column 2 lines 6-10). The combination would also

enable a method for disambiguation by letter for use in touch screen displays (Will,

column 15 lines 31-35).

With respect to claim 2, Dutta as modified teaches wherein said at least one

usage parameter for a certain word is related to the individual number of occurrences of

usage of said word (Dutta, paragraph 56 lines 9-12, Will, column 13 lines 46-58).

With respect to claim 3, Dutta as modified teaches wherein said at least one

usage parameter for a certain word is related to the individual number of occurrence of

usages of said word and the total number of occurrence of words (Dutta, paragraph 56

lines 9-12).

With respect to claim 6, Dutta as modified teaches further comprising storing said

selected characters in a log file for determining new usage parameters, and wherein

said inference logic determines said subset of most probable characters by evaluating

said log file (Dutta, paragraph 38, paragraph 57).

With respect to claim 8, Dutta as modified teaches wherein, the character subset is interlinked with the character set, in order to browse the characters on the display, such that upon browsing past the character subset, the browsing of the character set begins (Dutta, paragraph 39, paragraph 57).

With respect to claim 9, Dutta as modified teaches wherein generating the character subset with said inference logic comprises:

identifying a start of an entry of a new word (Dutta, paragraph 38 lines 1-2),

inserting, into the character subset, the most probable letters stored in the database of words for starting a word (Dutta, paragraph 38).

With respect to claim 10, Dutta as modified teaches:

identifying a text being entered, wherein the characters of said text relating to a word are entered (Dutta, paragraph 56),

identifying words being stored in said database of words that are appropriate for the word being entered (Dutta, paragraph 56), and

selecting, for the character subset, a character from each appropriate probable entry to be the possibly entered text (Dutta, paragraphs 38 and 56).

4.   Claims 4, 5, 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta et al. (US Patent Application Publication 2002/0149569 A1) ('Dutta') in view

of Will (US Patent 6,392,640) as applied to claims 1-3, 6 and 8-15 above, and further in

view of Dostie et al. (US Patent Application Publication 2004/0021691 A1) ('Dostie').

With respect to claim 4, Dutta as modified teaches wherein said at least one

usage parameter and said words are stored in a database comprising words and said at

least one usage parameter (Will, column 13 lines 54-58).

Dutta as modified does not teach said method further comprising adapting the

contents of said database after at least one word has been selected.

Dostie teaches a method, system and media for entering data in a personal

computing device (see abstract), in which he teaches further comprising adapting the

contents of said database after at least one word has been selected (paragraph 214).

It would have been obvious to a person having ordinary skill in the art at the time

the invention was made to have further modified Dutta by the teaching of Dostie

because further comprising adapting the contents of said database after at least one

word has been selected would enable the database or dictionary to have learning

capabilities, thus providing more functionality (Dostie, paragraph 214).

With respect to claim 5, Dutta as modified teaches wherein said adapting of said

database is performed by adding a new word to said database (Dostie, paragraph 214).

With respect to claim 7, Dutta as modified teaches wherein words stored in said

database of words are arranged in the form of a tree such that a root of the tree consists

of a beginning of a word, the root being connected to nodes representing single

characters on a next level such that on each level, potential characters are, in order of

probability, connected to a node on a pervious level whereby, as the process proceeds

from the root of the tree through the nodes to a node on the last level, the characters in

the nodes combine to form a word in said database of words (Dostie, Figure 4,

paragraphs 88-90).

With respect to claim 16, Dutta as modified teaches wherein said processing unit

is further configured to adapt the content of said database of words and said at least

one parameter according to selections of a user received from said input device (Dostie,

paragraphs 209-214).

Response to Arguments

5.   Applicant's arguments filed March 29, 2007 have been fully considered but they

are not persuasive. In response to applicant's argument that there is no suggestion to

combine the references, the examiner recognizes that obviousness can only be

established by combining or modifying the teachings of the prior art to produce the

claimed invention where there is some teaching, suggestion, or motivation to do so

found either in the references themselves or in the knowledge generally available to one

of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir.

1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case,

the motivation is found in the references themselves.

6.　　　Applicant argues that the combination would change the principle of operation of

Dutta because the addition of a thumbwheel to Dutta would destroy the purpose of

Dutta of providing a customizable touch screen keyboard for the selection of characters.

Examiner disagrees. Dutta is directed to an improved touch screen keyboard to

facilitate greater speed and ease of use in small handheld devices, such as PDAs.

Contrary to applicant's arguments, there is no teaching in Dutta that prohibits the use of

a thumbwheel or teaches that a thumbwheel would "destroy" Dutta's invention. In fact,

the primary purpose of Dutta's invention to solve the problem of the current data entry

system of small handheld devices, wherein the current system is searching for and

selecting letters one at a time using a stylus (paragraph 25).

Will also teaches data entry of text characters into small handheld devices, such

as PDAs, and more specifically improving the efficiency of text entry. Will uses a

thumbwheel for effective, efficient entry of text. It is known in the art that thumbwheels

provide an effective approach to navigating small handheld devices. Will further

teaches that a character group may be displayed on a touch-sensitive screen and

selected by the user touching the screen (Will paragraph 5 lines 1-10). Thus, it would

have been obvious to modify Dutta by the teaching of Will to enable a way of entering

text in a device too small for a keyboard, and more specifically a way to utilize the

thumbwheel along with a touch-screen to more effectively enter characters (Will, column

2 lines 6-10). The combination would also enable a method for disambiguation by letter

for use in touch screen displays (Will, column 15 lines 31-35).

7.   Applicant argues that Will by itself fails to disclose or suggest all of the limitations

recited in claims 1. In response to applicant's arguments against the references

individually, one cannot show nonobviousness by attacking references individually

where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231

USPQ 375 (Fed. Cir. 1986).

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alicia M. Lewis whose telephone number is 571-272-

5599. The examiner can normally be reached on Monday - Friday, 9 - 6:30, alternate

Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Charles Rones can be reached on 571-272-4085. The fax phone number
for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
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USPTO Customer Service Representative or access to the automated information
system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alicia Lewis
June 12, 2007

SAM RIMELL
PRIMARY EXAMINER